

of the porous plate 2 and the dimension of the through-holes provided in the porous plate 2, a markedly desirable effect is achieved when the value of the coefficient: "thickness of porous plate / through-hole dimension of porous plate" is not smaller than a certain value. That is, the above-mentioned value indicates the degree to which the light transmitted through the porous plate is approximated to parallel rays.

Specifically, a reduction in the dimension of the through-holes or an increase in the thickness of the porous plate is effective. To achieve a reduction in the thickness of the entire apparatus, however, the former is more desirable. Due to the limitations in production, the upper limit of the through-hole dimension is approximately 0.2 mm. From the practical point of view, values of approximately 0.5 mm to 2 mm are preferable. Regarding the thickness, values of approximately 3 mm to 20 mm are preferable from the practical point of view. While in the above example the value of the "thickness of porous plate / through-hole dimension of porous plate" is 3, this value is preferably not less than 5, and more preferably not less than 7.

Another experiment showed that, due to the reduction in the LCD dot size, each dot was not so clearly

transferred as compared with the case of the "transfer apparatus" disclosed in JP 11-242298 A. In particular, when the LCD dot size is not more than 0.2 mm, the tendency is remarkable.

From the above results, the effect obtained by the transfer apparatus of the present invention is obvious.

That is, in the transfer apparatus of the present invention, the sum total  $t$  of the thicknesses of the substrate 32 and the polarizing film 31 at least on the photosensitive film side of the LCD is set at not more than a predetermined value, that is, not more than 1.0 mm, more preferably not more than 0.8 mm, and most preferably not more than 0.6 mm, whereby it is possible to substantially improve the clarity of the transferred image. Further, as can be seen, by spacing apart the LCD and the photosensitive film from each other by a predetermined distance of 0.01 to 3 mm, it is possible to obtain an apparatus which is easy to handle and of a simple structure, making it possible to substantially improve the clarity of the transferred image.

Thus, in the transfer apparatus of the present invention, it is possible to set the sum total of the thicknesses of the substrate and the polarizing film on the photosensitive film side of the LCD, and the distance

between the LCD and the photosensitive film in accordance with the clarity desired for the transfer image.

While various embodiments and examples of the transfer apparatus of the present invention have been described in detail, the present invention is not restricted to these embodiments and examples. Various improvements and modifications are naturally possible without departing from the scope of the invention. For example, the back light unit as the light source and the LCD as the image display device are not restricted to the above-described ones. It is also possible to adopt one with various functions within the permissible range. Further, the digitally-recorded image (digital image data) used in the present invention may also be a digitally-recorded image read with a scanner or the like from a transmission original including a photographic film such as a negative film or a reversal film, or a reflection original such as a photograph.

As described above in detail, in accordance with the present invention, it is possible to realize a transfer apparatus which enables, with a simple structure, actual reduction in size, weight, power consumption, and cost.

The effect of the present invention can be further enhanced by adding the above-mentioned additional